

Drowning in Spreadsheets

A whitepaper about better Cost Value Reconciliation



Executive Summary

COMMERCIAL COST AND VALUE MANAGEMENT, AND THE ASSOCIATED REPORTING, HAS ALWAYS BEEN SEEN AS THE KEY TO ANY BUSINESS - THE CONSTRUCTION INDUSTRY IS NO DIFFERENT. IN MANY WAYS IT IS BROUGHT EVEN MORE TO THE FORE AND SEEN AS THE MAIN WAY OF MANAGING A PROJECT AND IDENTIFYING OVERSPEND OR UNDER PRODUCTION, BASED ON ANY CURRENT PROJECT POSITION.

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“66% of construction companies will need to hire external project and programme managers to supplement their existing workforce. Implementing a ‘digitised front office’ increases efficiency and enables better use of employees’ knowledge and experience.”

Source: KPMG 2015 Global Construction Project Owner’s Survey
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Furthermore, the historically low profit margins that have characterised the industry are coming under increasing pressure from all sides. In an industry where expenditure is so high yet the average profit margin could be minimal, project performance should be a vital component to improving the profitability of construction businesses. Government targets for 2020 include: 33% reduction in the initial cost of construction and the whole life costs of built assets. 50% reduction in the overall time, from inception to completion, for new build and refurbished assets. 0% reduction in the cost of maintaining highways.

Also, unlike most industries, it is a requirement of the commercial disciplines within a construction organisation to monitor contract cost, value and time - not only against the typical headings of Labour, Plant, Material and Subcontract, but also against project specific ‘activities’ or a client specific ‘work breakdown structure’. This issue is compounded when working for a number of clients on a variety of projects, all with different activities, work breakdown structures and reporting requirements.

Consequently, the quest for a timely CVR (Cost Value Reconciliation) may be the aspiration of many but is achieved by relatively few. The purpose of this white paper is to explore why it is such a challenge and to consider how this challenge can be met.

Ubiquitous Spreadsheet

When we ask companies how they face up to this challenge, the most common response is 'we use spreadsheets'. When you dig a little deeper, this is also quite often referred to as 'drowning in spreadsheets'. One of the key questions, therefore, is why has this over-abundance of spreadsheets become such a problem within many commercial construction businesses? In order to understand this we need to look at the ways in which software has been developed to take the place of traditional paper-based processes.

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"50% of construction companies have not yet introduced an integrated Project Management Information System (PMIS)."
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Source: KPMG 2015 Global Construction Project Owner's Survey
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At the core of all businesses are the financial systems, which are required to ensure that a business can operate and trade profitably. Over time these systems have expanded to cover areas such as procurement and, in some instances, have been adapted in an attempt to provide the cost data that would form part of the commercial CVR production process. In addition to this, other 'point solutions' have been developed to perform both construction and non-construction specific tasks such as estimating and project planning. Inevitably, this leads to a fragmented, siloed situation where a company is trying to make a number of disparate systems work in harmony. Typically, data is collected in different systems and at different levels of detail, resulting in considerable re-keying of information to transfer it from one system to another. Usually there is nothing wrong with the individual systems. Indeed, very often the company has taken the time to identify the 'best of breed' software for each function – problems occur when these systems are 'stretched' beyond their original design or scope to try to fill a gap.

Spreadsheets are a good example of this. Over time, as requirements change and, typically, become more onerous many companies try to get their spreadsheet-based systems to do more and more. This can reach a point where they become so complex, with only a few people understanding how they work, that they become a risk to the business. The cost of maintaining these spreadsheets also increases in line with their growing complexity. Very often, attempts will be made to integrate these complex spreadsheets with a range of databases and in-house systems to capture, manage and report information in the required project format. To make matters worse, these systems are often isolated from the corporate IT solution, creating a need for even more re-keying, with the associated increased risk of errors, inefficiencies and duplicated effort.

Solution

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“The scale and complexity of many of today’s construction projects call for swift coordination and real-time reporting. A fully integrated PMIS (Project Management Information System) can keep key stakeholders informed of schedule and cost status, and enable faster decision-making to keep projects on track.”

Source: KPMG 2015 Global Construction Project Owner’s Survey
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Clearly the solution to this challenge is to provide a total Cost and Value system that has the flexibility to complement existing business systems or, where these are lacking in functionality or data structure, introduce an alternative way of working that allows for cross-business adoption. If data is captured once, at source, by the right people and with the correct level of detail, then the process of managing and reporting on commercial projects should almost become a by-product of day-to-day processes.

If data is captured once, at source, by the right people and with the correct level of detail, then the process of managing and reporting on commercial projects should almost become a by-product of day-to-day processes. This can be achieved by working with a project accounting system that has an open approach to integration, as well as a design that allows for modular adoption throughout a business. This, in turn, allows for the ‘best of breed’ technology to be retained within the business, whilst at the same time providing the commercial control required. If all the data is held in one system and a powerful, user-definable report engine is wrapped around this, then the management reports, CVRs and other reports can be generated in a timely way with confidence in the data behind them and the ability to interrogate the data further where needed.

We have come top in the Highways Agency StART scores and the systems played no small part in that. We support collaboration so we have supply chain partners and clients and employees in the community all able to engage in the business systems.

Joe Incutti, Finance Director, EM Highways

Choosing the right project accounting solution

Project accounting software needs to provide all of the functionality to meet the challenges described above, including:

Flexible coding and analysis

Project accounting should be able to collect and report performance data against codes and headings that reflect the way in which the project is to be constructed or maintained, not just against the standard company cost codes. As a result, it delivers the ability to capture and manage project cost and value data in an extremely flexible manner embracing the changing needs of the client as well as the corporate requirements of the internal commercial and financial disciplines.

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Key Benefits of using the right project accounting solution:

- Improves performance management resulting in increased profitability.
 - Greater visibility of project performance.
 - Improves cash flow.
 - Reduces re-keying, fewer errors, less duplication of effort.
 - Provides the commercial team with the tools they need to control costs.
 - More efficient management of labour, plant, materials and sub-contractors.
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Valuations and CVRs

Whether undertaking a lump sum, target cost or term maintenance contract, the generation of applications for payment is an important business process and one that can traditionally be time consuming and long winded. A project accounting solution must therefore facilitate the capture of both cost and value data in the same format and enable the comparison between the two at any given point in time, giving the essential feedback on project profitability.

Earned Value Analysis (EVA) and Earned Value Management (EVM)

Earned Value Analysis techniques are becoming increasingly popular and as a result are starting to be implemented on a growing number of construction projects, as clients adopt EVA to proactively monitor the progress and performance of their projects.

Through integration with project planning applications, it is possible for the estimate to populate the project plan, therefore allowing the estimated production for each period (milestone, accounts period, valuation) to be analysed. By comparing this information with actual costs & actual measured progress from within the project accounting solution, it is possible to calculate a cost performance indicator and the schedule performance indicator respectively.

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Key Benefits of using the right project accounting solution:

- True integration of business disciplines.
 - Supports electronic auditing for open book initiatives.
 - Pro-active KPI analysis and benchmarking.
 - Sharpens competitive edge.
 - Facilitates compliance and good corporate governance.
 - Underpins continuous improvement.
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Term maintenance contracts

Term Maintenance Contracts are notorious for generating large volumes of paper transactions, often resulting in manual processes and the re-keying of data between numerous systems. A project accounting solution needs to offer the flexibility to understand the profitability of each and every works order or job undertaken on behalf of the client.

System integration

To provide a comprehensive commercial management solution to meet project specific needs it is essential that project accounting software is capable of integrating with software applications used by the contractor and client. Thus, it should be able to integrate with at least the following:

- Estimating
- Financial accounting
- Payroll
- Project planning
- Asset management
- Client systems

Without this system, there was only a limited opportunity once a month to review a project. I would spend 3-4 days pulling data together to produce a Cost Value report, which would only tell me that things were not as they should be. Then the process of evaluating and adjusting would begin. Now this process can be done whenever I need - and at the touch of a button.

Ron Turner, Commercial Manager

Conclusion

The problems described in this white paper are common within the construction and infrastructure sectors, so that having the ability to a report in a timely, robust way is a goal for many professionals in this industry. For many, though, spreadsheets have been seen as the only medium by which this can be achieved.

Ultimately this allows people within an organisation to use data to their advantage to manage the commercial cost and value position of a project – with the ability to act upon it in a timely fashion. The results of using this system can be seen in both the confidence of data integrity within a business and also the efficiency in which data can be processed from initial input through to the most granular of reporting requirements.

The Causeway Project Accounting solution provides an integrated way of working and reporting across a business and eliminates the need for unstructured spreadsheets that have to be manually manipulated and fed data from multiple systems.

By providing this system to all relevant parts of a business, data can be captured at the most appropriate point, in a consistent way. It can also be made available in real-time, allowing all relevant parts of a business to access it in support of better decision making.

Revolutionise your business:

<http://go.causeway.com/project-accounting/>

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